

## OIB - HU-25C Guardian 10/18/15 Science Report

**Aircraft:**

[HU-25A Guardian #525](#) ([See full schedule](#))

**Date:**

Sunday, October 18, 2015

**Mission:**

OIB

**Mission Location:**

Kangerlussuaq, Greenland

**Mission Summary:**

Mission: Falcon Southeast Coastal B (priority: medium)

This mission is one of two (along with Southeast Coastal A) which are designed primarily to re-fly the "Southeast Coastal" mission from Spring 2015. These two flights work together in an interlaced (working upward from the coast) manner. This particular flight concentrates on the second and fourth lowest of the coast-parallel lines. We also re-fly a pair of IceSat-1 lines focused on the far southeastern lobe of the Greenland Ice Sheet, last flown in 2014.

Today was the first day of the last five with weather remotely suitable for flying an optical remote sensing mission anywhere in the southern half of Greenland. The Icelandic low pressure system had moved far enough north this morning to promote katabatic outflow along Greenland's southeast coast, a classic clear weather-maker for this normally cloudy area. It is also a perfect setup for heavy turbulence in the deep glacier canyons there, because of the interaction of the strong katabatic winds with the rough terrain there. We have been "beaten up" in those canyons, flying low in prior campaigns, in precisely this synoptic situation. So today was one of the few times where flying high actually gave us more flexibility in dealing with poor weather. We would not have flown into areas with such potentially dangerous turbulence today, if we were flying low. We flew the entire mission at 31,000' MSL and enjoyed a perfectly smooth ride. We did encounter a few minutes of stratus cloud west of the ice divide during our transits to and from Kangerlussuaq, which resulted in minor loss of science data there. In the far south end of Greenland we encountered scattered to broken cirrus clouds, which also resulted in the sporadic loss of science data along the two IceSat-1 lines in that area. All in all we estimate successful data acquisition occurred across 95% of the flightline.

All instruments performed well today.

We did not conduct a ramp pass today.

Data volumes:

DMS: 25.9 Gb

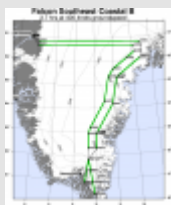
Narrow Swath ATM: 21 Gb

FLIR: 2.0 Gb

total data collection time: 3.8 hrs

**Images:**

### Map of Falcon - Southeast Coastal B



[Read more](#)

### Russell Glacier



[Read more](#)

## Jupiter and Venus over Raven's Cliff



[Read more](#)

### Submitted by:

John Sonntag on 10/18/15

### Related Flight Report:

## HU-25C Guardian 10/18/15

### Flight Number:

OIB2015 Arctic Southeast Coastal B

### Payload Configuration:

ATM & DMS

### Nav Data Collected:

No

### Total Flight Time:

4.1 hours

### Submitted by:

Luci Crittenden on 10/18/15

### Flight Segments:

<b>From:</b>	BGSF	<b>To:</b>	BGSF
<b>Start:</b>	10/18/15 14:00 Z	<b>Finish:</b>	10/18/15 18:06 Z
<b>Flight Time:</b>	4.1 hours		
<b>Log Number:</b>	<a href="#">16F002</a>	<b>PI:</b>	John Woods
<b>Funding Source:</b>	Thomas Wagner - NASA - SMD - ESD Cryosphere & International Polar Year		
<b>Purpose of Flight:</b>	Science		
<b>Comments:</b>	Weather cleared in Greenland today so OIB had the airfield open for Sunday ops and completed the Southeast Coastal B mission. Next flight scheduled for tomorrow, Monday, Oct 19.		

### Flight Hour Summary:

	15F005	16F002
<b>Flight Hours Approved in SOFRS</b>	100	
<b>Flight Hours Previously Approved</b>		67.4
<b>Total Used</b>	32.6	65.3
<b>Total Remaining</b>		2.1

### 16F002 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
<a href="#">10/05/15</a>	OIB2015 Arctic Sea Ice Central	Science	3.6	3.6	63.8
<a href="#">10/05/15</a>	OIB2015 Arctic Sea Ice East	Science	3.8	7.4	60
<a href="#">10/06/15</a>	OIB2015 Arctic Ice-Sat2 North	Science	4	11.4	56
<a href="#">10/07/15</a>	OIB2015 Arctic Transit Thule to Kangerlussuaq	Transit	2	13.4	54
<a href="#">10/08/15</a>	OIB2015 Arctic Southwest Coastal A	Science	3.8	17.2	50.2
<a href="#">10/08/15</a>	OIB2015 Arctic Thomas-Jakobshavn 01	Science	3.7	20.9	46.5
<a href="#">10/09/15</a>	OIB2015 Arctic Umanaq B	Science	3.9	24.8	42.6

<a href="#">10/13/15</a>	OIB2015 Arctic Jakobshavn Equip Store	Science	2.9	27.7	39.7
<a href="#">10/13/15</a>	OIB2015 Arctic Southeast Coastal A	Science	3.6	31.3	36.1
<a href="#">10/18/15</a>	OIB2015 Arctic Southeast Coastal B	Science	4.1	35.4	32
<a href="#">10/19/15</a>	OIB2015 Arctic Helheim-Kangerdlugussuaq	Science	3.7	39.1	28.3
<a href="#">10/19/15</a>	OIB2015 Arctic Helheim-Kangerdlugussuaq Gap B	Science	3.9	43	24.4
<a href="#">10/20/15</a>	OIB2015 Arctic Jakobshavn Mop-Up	Science	3.7	46.7	20.7
<a href="#">10/20/15</a>	OIB2015 Arctic Southwest Coastal B	Science	3.7	50.4	17
<a href="#">10/21/15</a>	OIB2015 Arctic Southwest Coastal C	Science	3.4	53.8	13.6
<a href="#">10/21/15</a>	OIB2015 Arctic K-EGIG-Summit	Science	3.7	57.5	9.9
<a href="#">10/22/15</a>	OIB2015 Arctic Mopup South	Science	2	59.5	7.9
<a href="#">10/22/15</a>	OIB2015 Arctic Ferry BGSF-CYYR	Ferry	2.2	61.7	5.7
<a href="#">10/23/15</a>	OIB2015 Arctic Ferry CYYR-KRIC	Ferry	3.3	65	2.4
<a href="#">10/23/15</a>	OIB2015 Arctic Ferry CYYR-KRIC	Ferry	0.3	65.3	2.1

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Page Editor: Erin Justice

NASA Official: Bruce A. Tagg

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*Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.*

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
<a href="#">09/15/15</a>	OIB #1	Check	2.7	2.7	97.3
<a href="#">09/20/15</a>	OIB #2, 3, 4	Ferry	2.7	5.4	94.6
<a href="#">09/21/15</a>	OIB #2, 3, 4	Ferry	2.3	7.7	92.3
<a href="#">09/21/15</a>	OIB #2, 3, 4	Ferry	2	9.7	90.3
<a href="#">09/23/15</a>	OIB2015 Arctic North Central Gap 02	Science	3.9	13.6	86.4
<a href="#">09/24/15</a>	OIB2015 Arctic Northwest Coastal A	Science	3.7	17.3	82.7
<a href="#">09/25/15</a>	OIB2015 Arctic Northwest Coastal B	Science	3.8	21.1	78.9
<a href="#">09/28/15</a>	OIB2015 Arctic Sea Ice West	Science	3.7	24.8	75.2
<a href="#">09/30/15</a>	OIB2015 Arctic North Central Gap 01	Science	3.9	28.7	71.3
<a href="#">09/30/15</a>	OIB2015 Arctic Zachariae-79N	Science	3.9	32.6	67.4